



Province of Manitoba

DEPARTMENT OF MINES AND NATURAL RESOURCES

MINES BRANCH

PUBLICATION 57-4

**Bibliography of
Geology, Palaeontology, Industrial Minerals, and Fuels
in the Post-Cambrian Regions of Manitoba**

1950 to 1957

Compiled by

B. A. MILLS

WINNIPEG

1959



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DEPARTMENT OF MINES AND NATURAL RESOURCES

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PREFACE

This bibliography, compiled to serve as an index to geological articles dealing with that part of Manitoba underlain by rocks of post-Cambrian age, covers the period 1951 to 1957 inclusive and is supplementary to Mines Branch publication 51-2, "Bibliography of Geology, Palaeontology, Industrial Minerals, and Fuels in the post-Cambrian Regions of Manitoba to 1950". A few articles published before 1951 but omitted from publication 51-2 are included in the present bibliography.

The bibliography has been divided into three parts. In Part I references are indexed according to authors in alphabetical order. Where more than one report by a particular author appeared during the same year they are distinguished for reference purposes by a letter a, b, etc. after the date - as 1953a, 1953b. In Part I the complete title of the article, the publication in which the article appears, the page number, and date are included for each reference.

Part II lists the reference according to subject matter; only the author's name and title of the article is given. For the complete reference, Part I should be consulted.

Appendix I of Part III contains a short list of stratigraphic maps compiled by the Mines Branch. These stratigraphic maps are compilations from available well records and consequently are revised from time to time as additional information becomes available. Several references dealing with drilling activity, oil production figures and other subjects which cannot be included conveniently in Parts I or II, but which may be of interest to the user of the bibliography are listed in Appendix II. Appendix III lists the authors of articles appearing before 1950 but missing from publication 51-2. References to such articles are contained also in Parts I and II of the present bibliography.

It is probable that some articles that should have been included in the present bibliography have been omitted. It will be appreciated if such omissions are brought to the attention of the Mines Branch.

Grateful acknowledgement is made of the kind assistance offered by the staffs of the University of Manitoba and the Manitoba Provincial Library.

LIST OF PUBLICATIONS AND ABBREVIATIONS

- Amer. Assoc. Petrol. Geol. Bull. - American Association of Petroleum Geologists Bulletin. Tulsa, Okla.
- Billings Geol. Soc. Guidebook, Ann. Field Conference - Billings Geological Society Guidebook, Annual Field Conference. Billings, Mont.
- Canada Dept. Mines and Tech. Surv., Mines Br. Memo. Ser. - Canada Department of Mines and Technical Surveys, Mines Branch Memorandum Series; Industrial Minerals Division - Water Surveys Report. Ottawa, Canada.
- Canadian Field Naturalist. Ottawa, Canada.
- Can. Inst. Min. and Met. Trans. - Canadian Institute of Mining and Metallurgy Transactions. Montreal, Quebec.
- Can. Oil and Gas Indust. - Canadian Oil and Gas Industries. Gardenvale, Quebec.
- Canadian Strat. Serv. Ltd. - Canadian Stratigraphic Service Limited. Calgary, Alberta.
- Denison Univ. Sci. Lab. Jour. - Denison University Scientific Laboratories Journal. Granville, Ohio.
- Geol. Assoc. Canada - Geological Association of Canada; Special Papers. Ottawa, Canada.
- Geol. Mag. - Geological Magazine. Hertford, England.
- Geol. Soc. Amer. Bull. - Geological Society of America Bulletin. New York.
- Geol. Surv. Canada, Bull.; Mem.; Paper; Water Supply Paper; Econ. Geol. Ser.; - Geological Survey of Canada, Bulletin; Memoir; Paper; Water Supply Paper; Economic Geology Series. Ottawa, Canada.
- Geophysics. Austin, Texas.
- Imperial Oil Review. Toronto, Ontario.
- Jour. Alta. Soc. Petrol. Geol. - Journal of the Alberta Society of Petroleum Geologists. Calgary, Alberta.
- Jour. Geol. - Journal of Geology. Chicago, Ill.
- Jour. Paleontology - Journal of Paleontology. Tulsa, Okla.
- Kansas Univ. Paleont. Contrib. - Kansas University Paleontological Contributions. Topeka, Kansas.
- Manitoba Dept. Agric. - Manitoba Department of Agriculture, Winnipeg, Manitoba.
- Manitoba Mines Branch Pub. - Manitoba Department of Mines and Natural Resources, Mines Branch Publications. Winnipeg, Manitoba.
- Manitoba Dept. Indust. and Commerce Bull. - Manitoba Department of Industry and Commerce Bulletin. Winnipeg, Manitoba.
- Mich. Univ. Mus. Paleontology Contrib. - Michigan University Museum of Paleontology Contributions. Ann Arbor, Michigan.
- Natl. Research Council of Canada, Assoc. Comm. on Soil and Snow Mech., Tech. Memo. - National Research Council of Canada, Associate Committee on Soil and Snow Mechanics, Technical Memorandum. Ottawa, Canada.
- N. Dak. Geol. Soc. - North Dakota Geological Society.
- N. Dak. Geol. Surv. Bull.; Rept. Inv. - North Dakota Geological Survey Bulletin; Report of Investigations. Grand Forks, N. Dak.
- Oil and Gas Jour. - Oil and Gas Journal. Tulsa, Okla.
- Oil in Canada. Winnipeg, Manitoba.
- Ottawa Naturalist. Ottawa, Canada.

Petroleum Engineer. Dallas, Texas.
PFRA Interim Rept. - Prairie Farm Rehabilitation Administration Interim
Report. Winnipeg, Manitoba.
Precambrian - The Precambrian. Winnipeg, Manitoba.
Rock Products. Chicago, Ill.
Saskatchewan Geol. Soc. - Saskatchewan Geological Society. Regina, Sask.
Saskatchewan Geol. Surv. Rept. - Saskatchewan Geological Survey Report.
Regina, Sask.
Science. Lancaster, Pa.
Trans. Roy. Soc. Canada. - Transactions of the Royal Society of Canada.
Ottawa, Canada.
Scientific Agriculture. Ottawa, Canada.
U.S. Geol. Surv. Bull. - United States Geological Survey Bulletin.
Western Miner. Vancouver, B.C.
Williston Basin Oil Review. - Bismark, N.D.
World Oil. Houston, Texas.
World Petroleum. New York.

PART I

REFERENCES INDEXED BY AUTHORS

- Alberta Society of Petroleum Geologists.
(1951): Western Canada.
Amer. Assoc. Petrol. Geol. Bull., vol. 35, No. 2, pp. 169-184
- Allan, J. D.
(1951): Exploration for Oil and Gas in Manitoba.
Can. Oil and Gas Indust., vol. 4, No. 6, pp. 1-4.
Oil in Canada, vol. 3, No. 24, pp. 16-18.
- Ambler, J. S.
(1956): See Parks, T.
- Andrichuk, John.
(1952): Devonian of the Northern Rocky Mountain and Great Plains Area.
Billings Geol. Soc. Guidebook, 3rd Ann. Field Conference,
pp. 56-63.
- Anonymous.
(1946): Buildings by Manitoba.
Imperial Oil Review, pp. 23-24.
(1953a): Williston - Newest Producing Basin of the Rockies.
Oil and Gas Jour., vol. 52, No. 17, pp. 72-80.
(1953b): Sixth Annual Canadian Soil Mechanics Conference.
Precambrian, vol. 26, No. 1, pp. 28, 32.
(1957a): Manitoba Clay Products Industry.
Manitoba Dept. Indust. and Commerce Bull., vol. 9, No. 1,
pp. 1, 11-12.
(1957b): Manitoba Oil Fields.
Oil in Canada, vol. 10, No. 1, pp. 112-115.
(1957c): Williston Correlator.
Oil and Gas Jour., vol. 55, No. 19, p. 221.
- A. P. I. Subcommittee.
(1955): Mud Practices in the Prairie Provinces - Part II.
Can. Oil and Gas Indust., vol. 8, No. 9, pp. 43-46.
- Armstrong, W. E.
(1923): The Gypsum Industry in Manitoba.
Can. Inst. Min. and Met. Trans., vol. 28, pp. 209-213.
- Atkinson, R. F.
(1956): (and Hegion, Steve). Progress and Development of the Virden-
Roselea Field, Virden, Manitoba.
Can. Inst. Min. and Met. Trans., vol. 59, pp. 369-375.
Oil in Canada, vol. 9, No. 4, pp. 16-20, 22, 24.
- Baillie, Andrew D.
(1950): Devonian Stratigraphy of Lake Manitoba - Lake Winnipegosis Area,
Manitoba.
MSc. thesis, Dept. of Geol., Univ. of Manitoba.
(1951): Silurian Geology of the Interlake Area, Manitoba.
Manitoba Mines Branch Pub. 50-1, 82 pp.
(1952a): Ordovician Geology of the Lake Winnipeg and Adjacent Areas,
Manitoba.

- Baillie, Andrew D. (Cont'd)
- Manitoba Mines Branch Pub. 51-6, 64 pp.
- (1952b): Palaeozoic Stratigraphy of the Outcrop Area in Manitoba.
N. Dak. Geol. Soc. Guidebook, 1st. Ann. Field Conference
July 1952, pp. 32-40.
- (1953a): Devonian System of the Williston Basin Area, Manitoba.
PhD. thesis, Northwestern Univ.
- (1953b): Devonian System of the Williston Basin Area, Manitoba.
Manitoba Mines Branch Pub. 52-5, 105 pp.
- (1953c): Devonian Names and Correlation in the Williston Basin Area.
Amer. Assoc. Petrol. Geol. Bull., vol. 37, No. 2, pp. 444-452.
Oil in Canada, vol. 5, No. 41, pp. 21-22.
- (1955): Devonian System of Williston Basin.
Amer. Assoc. Petrol. Geol. Bull., vol. 39, No. 5, pp. 575-629.
1956 - Part I - Can. Oil and Gas Indust., vol. 9, No. 9, pp. 65-
75; Part II - vol. 9, No. 10, pp. 56-66; Part III - vol. 9,
No. 11, pp. 120-127.
- Baracos, A.
- (1950): Soil Mechanics and the Winnipeg Flood.
Natl. Research Council of Canada, Assoc. Comm. on Soil and
Snow Mech., Tech. Mem. No. 19.
- (1952): Foundation Investigation in Winnipeg Following the 1950 Red River
Flood.
Natl. Research Council of Canada, Assoc. Comm. on Soil and
Snow Mech., Tech. Mem. No. 23, Sec. 10, pp. 56-58.
- Barnes, T.R.
- (1952): The Williston Basin - A New Province for Oil Exploration.
Billings Geol. Soc. Guidebook, 3rd, Ann. Field Conference,
pp. 97-118.
1953 - Amer. Assoc. Petrol. Geol. Bull., vol. 37, No. 2,
pp. 340-354.
- Beach, Floyd K.
- (1952): Geothermal Gradients in Canadian Plains.
Can. Oil and Gas Indust., vol. 5, No. 11, pp. 43-46.
- Beck, A.F.
- (1950): Western Canadian Plains - A New Challenge to Geophysics.
Can. Inst. Min. and Met. Trans., vol. 53, pp. 82-85.
- Berg, C.A.
- (1956): Virden-Roselea and North Virden Fields, Manitoba.
Williston Basin Symposium, N. Dak. Geol. Soc. and Saskatchewan
Geol. Soc., Bismarck, N. Dak., pp. 84-93.
Abs: Oil and Gas Jour., vol. 54, No. 79, p. 182.
- Birse, Donald J.
- (1928): Dolomitization Processes in the Palaeozoic Horizons of Manitoba.
MSc. thesis, Univ. of Manitoba.
- Blake, D.A.W.
- (1952): See Clark, T.H.
- Borden, Robert L.
- (1956a): Upper Palaeozoic Stratigraphy of the Southern Part of the Prairie
Provinces, Canada.

- Borden, Robert L. (Cont'd)
 Jour. Alta. Soc. Petrol. Geol., vol. 4, No. 1, pp. 1-12.
 (1956b): Mesozoic Stratigraphy of the Southern Part of the Prairie
 Provinces, Canada.
 Jour. Alta. Soc. Petrol. Geol., vol. 4, No. 3, pp. 59-63, 69.
 (1956c): Historical Geology and Tectonics of the Southern Part of the
 Prairie Provinces, Canada.
 Jour. Alta. Soc. Petrol. Geol., vol. 4, No. 6, pp. 134-140.
- Buffington, E.C.
 (1951): See Murray, A.S.
- Burg, K.E.
 (1952): Exploration Problems of the Williston Basin.
 Billings Geol. Soc. Guidebook, 3rd. Ann. Field Conference
 pp. 118-127.
- Check, R.
 (1956): Winnipegosis Formation of Saskatchewan and Adjacent Areas.
 Abs: Williston Basin Symposium, N. Dak. Geol. Soc. and
 Saskatchewan Geol. Soc., Bismarck, N. Dak., p. 140.
- Clark, T.H.
 (1952): (and Blake, D.A.W.). Ordovician Fossils From Waswanipi Lake,
 Quebec.
 Canadian Field Naturalist, vol. 66, No. 5, pp. 119-121.
- Cole, Geo. E.
 (1951): Activity in Manitoba
 Western Miner, vol. 24, No. 5, p. 58.
 (1953): Manitoba's Industrial Minerals.
 Western Miner, vol. 26, No. 11, pp. 122, 124-127.
- Cooper, G.A. et al.
 (1942): Correlation of the Devonian Sedimentary Formations of North
 America.
 Geol. Soc. Amer. Bull., vol. 53, pp. 1729-1794.
- Cox, Ian.
 (1938): Arctic and Some Other Species of Streptelasma.
 Geol. Mag., vol. 74, No. 1, pp. 1-19.
- Crickmay, C.H.
 (1954): Paleontological Correlation of Elk Point and Equivalents.
 Western Canada Sedimentary Basin Symposium, Amer. Assoc.
 Petrol. Geol., pp. 143-158.
 (1957): Elucidation of Some Western Canada Devonian Formations.
 Imperial Oil Ltd., Calgary, 14 pp.
- Darling, G.B.
 (1955): (and Wood, P.W.J.). The Habitat of Oil in the Canadian Portion
 of the Williston Basin.
 Abs: Oil and Gas Jour., vol. 53, No. 48, p. 210.
- Dorshenko, J.
 (1953): See Hadley, H.D.
- Dowling, D.B.
 (1895): Notes on the Stratigraphy of the Cambro-Silurian Rocks of
 Eastern Manitoba.
 Ottawa Naturalist, vol. 9, No. 3, pp. 65-74.

Duncan, Helen.

- (1956): Ordovician and Silurian Coral Faunas of Western United States.
U.S. Geol. Surv. Bull. 1021-F, p. 219, pls. 21 & 22, figs. 1 & 4.
- (1957): Bighornia, A New Ordovician Coral Genus.
Jour. Paleontology, vol. 31, No. 3, p. 611.

Eddie, Ralph W.

- (1957): Saskatchewan's Regional Habitat of Mississippian Oil.
Can. Oil and Gas Indust., vol. 10, No. 7, pp. 73-78.

Edmunds, F.H.

- (1954): Petroleum Geology of Western Canada.
Petroleum Engineer, vol. 26, No. 11, pp. B 39-40, B 42, B 44,
B 46, B 48, B 50, B 52.

Ehrlich, W.A. et al.

- (1953): Report of Reconnaissance Soil Survey of Winnipeg and Morris Map
Sheet Areas.
Manitoba Dept. Agric., Soils Rept., No. 5, 111 pp.
- (1955): (and Rice, H.M.). Post Glacial Weathering of Mankato Till in
Manitoba.
Jour. Geol., vol. 63, pp. 527-537.

Ellis, J.H.

- (1953): (and Pratt, L.E.). Source and Nature of the Regolith in the
Various Landscape Areas of Southern Manitoba.
Natl. Research Council of Canada, Assoc. Comm. on Soil and
Snow Mech., Tech. Mem. No. 27, pp. 3-17.

Elson, J.A.

- (1949a): Groundwater Resources of Townships 7 to 10, Ranges 4 to 17 WPM,
Manitoba (Carberry Area).
Geol. Surv. Canada, Water Supply Paper No. 302, 18 pp.
- (1949b): See Halstead, E.C. - 1949d
- (1949c): See Halstead, E.C. - 1949e
- (1949d): (and Halstead, E.C.). Groundwater Resources of Townships 1 to
6, Ranges 18 to 21 WPM, Manitoba (Boissevain Area).
Geol. Surv. Canada, Water Supply Paper No. 301, 23 pp.
- (1954): Guidebook Pleistocene Geology of Southwestern Manitoba.
Field Excursion, Oct. 2-3, 1954.
- (1955): Surficial Geology of the Tiger Hills Region, Manitoba.
PhD. Thesis, Yale Univ.
- (1956): Surficial Geology of Deloraine, Manitoba (Preliminary Map)
Geol. Surv. Canada, Paper 55-19.
- (1957a): Lake Agassiz and the Mankato-Valders Problem.
Science, vol. 126, No. 3281, pp. 999-1002.
- (1957b): History of Glacial Lake Agassiz.
Abs: Geol. Soc. Amer. Bull., vol. 68, No. 12, pt. 2, p. 1721.
- (1957c): Origin of Washboard Moraines.
Abs: Geol. Soc. Amer. Bull., vol. 68, No. 12, pt. 2, p. 1721.
- (1957d): Souris Basin Glacial Lakes, Southwestern Manitoba, Canada.
Abs: Geol. Soc. Amer. Bull., vol. 68, No. 12, pt. 2, p. 1722.
- (1957e): Striated Boulder Pavements of Southern Manitoba, Canada.
Abs: Geol. Soc. Amer. Bull., vol. 68, No. 12, pt. 2, p. 1722.

- Flint, R. F.
 (1953): Probable Wisconsin Substages and Late Wisconsin Events in
 Northeastern United States and Southeastern Canada.
 Geol. Soc. Amer. Bull., vol. 64, pp. 897-920.
- Flood, A. L.
 (1957): See Harrison, Ray L.
- Flower, Rousseau H.
 (1956): Age of the Red River Faunas (Ordovician), Manitoba to New
 Mexico.
 Abs: Geol. Soc. Amer. Bull., vol. 67, No. 12, p. 1696.
 (1957): (and Teichert, Curt). The Cephalopod Order Discosorida.
 Kansas Univ. Paleont. Contrib., Mollusca, Article 6, pp. 1-144.
- Foerste, A. F.
 (1930): (and Teichert, C.). The Actinoceroids of East-Central North
 America.
 Denison Univ. Bull., Sci. Lab. Jour., vol. 25, pp. 273-4.
- Fowler, Noel M.
 (1953): Manitoba - Williston Basin's Northeast Flank.
 World Petroleum, vol. 24, No. 5., pp. 102-105.
- Francis, David R.
 (1956a): Some Aspects of Jurassic Stratigraphy in the Williston Basin Area.
 Williston Basin Symposium, N. Dak. Geol. Soc. and Saskatchewan
 Geol. Soc., Bismarck, N. Dak., pp. 179-185.
 (1956b): Jurassic Stratigraphy of the Williston Basin Area.
 Saskatchewan Dept. of Mineral Resources, Rept. No. 18, pp. 10-69.
 1957 - Amer. Assoc. Petrol. Geol. Bull., vol. 41, No. 3,
 pp. 367-398.
- Frebold, Hans
 (1953): Correlation of the Jurassic Formations of Canada.
 Geol. Soc. Amer. Bull., vol. 64, pp. 1229-1246.
- Fuller, J. G. C. M.
 (1956a): Madison Limestone in Southeastern Saskatchewan.
 Oil in Canada, vol. 8, No. 40, pp. 34, 36, 38, 40, 42, 44, 46-48,
 50, 52, 54, 56, 58.
 (1956b): Mississippian Rocks and Oil Fields in Southeastern Saskatchewan.
 Saskatchewan Dept. of Mineral Resources, Rept. No. 19, pp. 7-72.
 (1956c): Mississippian Rocks in Southeastern Saskatchewan.
 Can. Inst. Min. and Met. Trans., vol. 59, pp. 112-119.
 (1957a): Mississippian of the Williston Basin.
 Can. Oil and Gas Indust., vol. 10, No. 7, pp. 67-72.
 (1957b): Stratigraphic Names: Mississippian Rocks in Saskatchewan.
 Jour. Alta. Soc. Petrol. Geol., vol. 5, No. 6.
- Gallup, W. B.
 (1952): Oil and Gas Exploration on the Canadian Plains.
 Western Miner, vol. 25, No. 5, pp. 39-42.
 (1953): (and Hamilton, G. J.). The Orogenic History of the Williston
 Basin, Saskatchewan.
 Billings Geol. Soc. Guidebook, 4th Ann. Field Conference
 pp. 123-136.

- Garden, J. J.
 (1949): Preliminary Study of the Boissevain and Turtle Mountain Formation of Southwest Manitoba.
 BAsC. Thesis, Univ. of Toronto.
- Genik, G. J.
 (1952): Regional Study of the Winnipeg Formation.
 MSc. Thesis, Univ. of Manitoba.
 (1954): Regional Study of the Winnipeg Formation.
 Jour. Alta. Soc. Petrol. Geol., vol. 2, No. 5.
- Gutschick, K. A.
 (1956): Canada Cement's Largest Kiln Doubles Capacity at Fort Whyte Plant.
 Rock Products, Aug. 1956, p. 95.
- Hadley, H. D.
 (1952): (Lewis, P. J. and Larsen, R. B.). Catalog of Formation Names for Williston Basin and Adjacent Areas.
 Billings Geol. Soc. Guidebook, 3rd. Ann. Field Conference pp. 132-143.
 (1953): (Lewis, P. J., Larsen, R. B., and Dorshenko, J.). Catalog of Formation Names for Williston Basin and Adjacent Areas.
 Billings Geol. Soc. Guidebook, 4th Ann. Field Conference pp. 170-182.
- Halstead, E. C.
 (1949a): Groundwater Resources of Townships 7 to 10, Ranges 22 to 25 WPM, Manitoba (Oak Lake Area).
 Geol. Surv. Canada, Water Supply Paper No. 298, 15 pp.
 (1949b): Groundwater Resources of Townships 7 to 10, Ranges 26 to 29 WPM, Manitoba (Virden Area).
 Geol. Surv. Canada, Water Supply Paper No. 299, 18 pp.
 (1949c): See Elson, J. A. - 1949d
 (1949d): (and Elson, J. A.). Groundwater Resources of Townships 1 to 6, Ranges 26 to 29 WPM, Manitoba (Melita Area).
 Geol. Surv. Canada, Water Supply Paper No. 297, 22 pp.
 (1949e): (and Elson, J. A.). Groundwater Resources of Townships 1 to 6, Ranges 22 to 25 WPM, Manitoba (Deloraine Area).
 Geol. Surv. Canada, Water Supply Paper No. 300, 22 pp.
 (1951a): Groundwater Resources of Townships 11 to 14, Ranges 18 to 21, WPM, Manitoba (Rivers Area).
 Geol. Surv. Canada, Water Supply Paper No. 313, 23 pp.
 (1951b): Groundwater Resources of Townships 11 to 14, Ranges 22 to 25, WPM, Manitoba (Hamiota Area).
 Geol. Surv. Canada, Water Supply Paper No. 315, 21 pp.
 (1951c): Groundwater Resources of Townships 11 to 14, Ranges 26 to 29, WPM, Manitoba (Elkhorn Area).
 Geol. Surv. Canada, Water Supply Paper No. 319, 22 pp.
 (1954a): Groundwater Resources of Townships 1 to 6, Ranges 6 to 9, WPM, Manitoba (Manitou Area).
 Geol. Surv. Canada, Water Supply Paper No. 324, 28 pp.
 (1954b): Groundwater Resources of Townships 1 to 6, Ranges 10 to 13, WPM, Manitoba (Pilot Mound Area).
 Geol. Surv. Canada, Water Supply Paper No. 325, 24 pp.

- (1954c): Groundwater Resources of Townships 7 to 10, Ranges 18 to 21, WPM, Manitoba (Brandon-Souris Area).
Geol. Surv. Canada, Water Supply Paper No. 326, 27 pp.
- Hamilton, G. J.
(1953): See Gallup, W. B.
- Harris, S. H.
(1957): (and Mallin, J. W.). Devonian of the United States Portion of the Williston Basin.
Williston Basin Oil Review, vol. 6, No. 5, pp. 15-19.
- Harrison, Ray L. Jr.
(1953): The Story of Williston Basin.
Oil and Gas Jour., vol. 52, No. 50, pp. 187-195.
(1957): (and Flood, A. L.). Mississippian Correlations in the Williston Basin.
Can. Oil and Gas Indust., vol. 10, No. 7, pp. 79-88.
- Hees, H. Van.
(1956): Elk Point Group.
Jour. Alta. Soc. Petrol. Geol., vol. 4, No. 2, pp. 29-37.
- Hegion, Steve.
(1950): Structure of the First White Speckled Shale in Manitoba and Saskatchewan.
BASc. thesis, Univ. of Toronto.
(1956): See Atkinson, R. F.
- Hodgson, G. W.
(1954): Vanadium, Nickel, and Iron Trace Metals in Crude Oils of Western Canada.
Amer. Assoc. Petrol. Geol. Bull., vol. 38, No. 12, pp. 2537-54.
- Holland, F. D., Jr.
(1955): (and Waldren, C. H.). Conodonts in the Winnipeg Formation (Ordovician) of North Dakota.
Geol. Soc. Amer. - Program 1955 - Annual Meeting, Nov. 7 to 9, 1955, p. 50A.
- Hume, G. S.
(1950): Western Canada's Petroleum and Natural Gas Resources.
Oil in Canada, vol. 11, No. 41, pp. 23-27.
- Hutt, G. M.
(1951): Searching for Industrial Minerals in Canada, Part I and Part II.
Part I - Western Miner, vol. 24, No. 3, pp. 35-41.
Part II - Western Miner, vol. 24, No. 4, pp. 20-22, 24, 26, 28, 30, 32.
(1953): Strategic and Industrial Mineral Production in Manitoba.
Western Miner, vol. 26, No. 12, pp. 42-43.
- Johnson, E. J.
(1950): Pollen Analysis of Peat Underlying a Treeless Heath Area in the Forest Tundra Transition Near Churchill, Man.
Natl. Research Council of Canada, Assoc. Comm. on Soil and Snow Mech. Tech. Memo. No. 16.
- Johnson, W. A.
(1953): Origin and Characteristics of the Red River Valley and Regina Plain Clay Soils of Western Canada.
Scientific Agriculture, vol. 15, pp. 268-275.

- Johnson, Walter.
 (1956): Mississippian Oil Fields of Northeastern Williston Basin.
 Abs: Oil and Gas Jour., vol. 54, No. 53, p. 139.
- Klingspor, A.
 (1955): Jurassic Stratigraphy of the Sweetgrass Arch. Manitoba Section.
 Abs: Can. Oil and Gas Indust., vol. 8, No. 10, p. 60.
 1956 - Amer. Assoc. Petrol. Geol. Bull., vol. 40, No. 2,
 pp. 415-416.
- Kornfeld, Joseph A.
 (1953): Seismic Problems in Williston Basin.
 Oil and Gas Jour., vol. 52, No. 50, pp. 196-200.
- Kuiper, E.
 (1953a): Dikes - Pasquia Area.
 Saskatchewan River Reclamation Project, PFRA Interim Rept.
 No. 2, 12 pp., Winnipeg, Man.
 (1953b): Hydrometric Surveys - 1953.
 Saskatchewan River Reclamation Project, PFRA Interim Rept.
 No. 3, 24 pp., Winnipeg, Man.
 (1953c): History and Geology.
 Saskatchewan River Reclamation Project, PFRA Interim Rept.
 No. 4, 43 pp., Winnipeg, Man.
 (1954): Drainage - Pasquia Area.
 Saskatchewan River Reclamation Project, PFRA Interim Rept.
 No. 5, 19 pp., Winnipeg, Man.
 (1955): Regime Saskatchewan River.
 Saskatchewan River Reclamation Project, PFRA Interim Rept.
 No. 10, 15 pp., Winnipeg, Man.
- Kupsch, W. O.
 (1952): Ordovician and Silurian Stratigraphy of East Central Saskatchewan.
 Saskatchewan Geol. Surv. Rept. No. 10, pp. 7-62.
- La Roque, Aurele.
 (1949): New Uncoiled Gastropods From the Middle Devonian of Michigan
 and Manitoba.
 Mich. Univ. Mus. Paleontology Contrib., vol. 7, No. 7, pp.13-22.
- Laird, Wilson M.
 (1953): Geology of the Williston Basin.
 Oil in Canada, vol. 6, No. 4, pp. 18-20, 22, 24, 26.
 Williston Basin Oil Review, October 1953, pp. 26-35.
- Larsen, R. B.
 (1952): See Hadley, H. D.
 (1953): See Hadley, H. D.
- Laurence, R. H.
 (1954): (and Sproule, J. C.). Report on the Daly and Virden-Roselea
 Oil Fields, Manitoba.
 Oil in Canada, vol. 6, No.51, pp. 26-28, 30, 32, 34, 36, 38-40.
- Leith, Edward I.
 (1929): A Stratigraphic Study of the Coloradoan of the Manitoba Escarp-
 ment With Special Reference to Certain of the Calcareous
 Horizons.
 MSc. thesis, Univ. of Manitoba.

- (1951a): Frilled Atrypas From the Devonian of Manitoba.
Abs: Geol. Soc. Amer. Bull., vol. 62, p. 1459.
- (1951b): See Macauley, G.
- (1952): Schizocoralla From the Ordovician of Manitoba.
Jour. Paleontology, vol. 26, No. 5, pp. 789-796.
- Lewis, P. J.
(1952): See Hadley, H. D.
(1953): See Hadley, H. D.
- Link, Theo A.
(1950): The Western Canada Sedimentary Basin Area.
Can. Inst. Min. and Met. Trans., vol. 53, pp. 266-276.
- Lukk, Gerard E.
(1954): The Williston Basin and Its Exploration Problems.
Geophysics, vol. 19, No. 3, pp. 572-581.
- Macauley, George.
(1951): (and Leith, E. I.). Winnipeg Formation of Manitoba.
Abs: Geol. Soc. Amer. Bull., vol. 62, pp. 1461-62.
(1952): The Winnipeg Formation in Manitoba.
MSc. thesis, Univ. of Manitoba.
(1955): A General Discussion of the Winnipeg Formation.
Jour. Alta. Soc. Petrol. Geol., vol. 3, No. 4, pp. 49-52, 59.
- McCabe, Hugh R.
(1956): Lyleton and Amaranth Red Beds in Southwestern Manitoba.
MSc. thesis, Univ. of Manitoba.
- McCabe, William S.
(1954): Williston Basin Paleozoic Unconformities.
Amer. Assoc. Petrol. Geol. Bull., vol. 38, No. 9, pp. 1997-2010.
Abs: Oil and Gas Jour., vol. 52, No. 50, p. 209.
- McCaslin, John C.
(1956): Where Production Comes From in Four Important Rocky Mountain Basins - Williston.
Oil and Gas Jour., vol. 54, No. 52, pp. 242, 244.
- McCartney, Garnet C.
(1928): A Petrographic Study of Various Sand Horizons of Manitoba and Eastern Saskatchewan.
MSc. thesis, Univ. of Manitoba.
- Macdonald, A. E.
(1952): Soils and Foundations Work in Manitoba.
Natl. Research Council of Canada, Assoc. Comm. on Soil and Snow Mech., Tech. Memo. No. 23, pp. 54-55.
- Macdonald, W. D.
(1954): Jurassic Correlation From Sweetgrass Arch to Manitoba.
Abs: Can. Oil and Gas Indust., vol. 7, No. 11, pp. 58-59.
- McGehee, J. Rex.
(1952): A Resume of the Elk Point Formation in View of Recent Drilling in the Williston Basin.
Billings Geol. Soc. Guidebook, 3rd. Ann. Field Conference, p. 64.
- MacKay, S.
(1951): See Murray, A. S.

- Mackenzie, W. D. C.
 (1953): Development of Petroleum Resources in Western Canada.
 Oil in Canada, vol. 5, No. 15, pp. 23-24, 47.
- MacLean, Brian.
 (1956): Oil and Gas Developments in Western Canada.
 Western Miner, vol. 29, No. 4, pp. 38, 40, 42, 44, 46, 48, 50.
- Matthews, J. G.
 (1952): Preliminary Report on Coated Lightweight Concrete Aggregate
 From Canadian Clays and Shales; Part II, Manitoba and Saskat-
 chewan.
 Canadian Dept. Mines and Tech. Surveys, Mines Br. Memo. Ser.
 No. 117, 68 pp.
- Mallin, J. W.
 (1957): See Harris, S. H.
- Millikan, C. V.
 (1953): Development and Production in the Williston Basin.
 Oil in Canada, vol. 6, No. 5, pp. 16-18, 20, 22-23.
- Milne, James F.
 (1955): (and Nickoloff, George). Virden-Roselea Shows Promise of
 Manitoba.
 Petroleum Engineer, vol. 27, No. 2, pp. B-81 to B-90.
- Mitchell, James G.
 (1951): Preliminary Notes on Correlation of Beaverhill Lake and Elk Point
 Formations of Alberta with Manitoban, Winnipegosan, and Elk
 Point Formations of Manitoba.
 Review: Can. Oil and Gas Indust., vol. 4, No. 9, p. 50.
 Canadian Strat. Serv. Ltd., Calgary, Alta. pp. 1-4.
- Mollard, J. R.
 (1957): Aerial Mosaics Reveal Fracture Patterns on Surface Materials in
 Southern Saskatchewan and Manitoba.
 Oil in Canada, vol. 9, No. 40, pp. 26, 28, 30, 34, 38, 40, 44, 46, 48.
- Murray, A. S.
 (1951): (Storey, J. H., Buffington, E. C. and MacKay, S.). Mud Practices
 in the Prairie Provinces.
 Can. Oil and Gas Indust., vol. 4, No. 10, pp. 30-35.
- Nelson, Samuel J.
 (1952): Ordovician Paleontology and Stratigraphy of the Churchill and
 Nelson River, Manitoba.
 PhD. thesis, McGill Univ.
 (1953): Ordovician Stratigraphy and Paleontology of the Northern Hudson
 Bay Lowlands.
 Abs: Geol. Soc. Amer. Bull., vol. 64, No. 12, pt.2, p. 1458.
- Nickle, C. O.
 (1951): Western Canada Oil and Gas - How Far - And How Much Farther?
 Oil in Canada, vol. 4, No. 1, pp. 14-16, 18, 20.
- Nickoloff, G. D.
 (1955): See Milne, J. F.
- North Dakota Geological Society.
 (1952): Southern Manitoba and the Interlake Area, Province of Manitoba.
 N. Dak. Geol. Soc. Guidebook, July 16 to 19, 1952, 43 pp.

- (1954): Stratigraphy of the Williston Basin.
N. Dak. Geol. Soc., Bismarck, N. Dak., 78 pp.
- Organ, D. W.
(1952): Pleistocene Gravels of the Red River Valley.
MSc. thesis, Univ. of Manitoba.
(1956): (and Russin, G. M.). Mississippian Stratigraphy of the Daly Oil
Field.
Can. Inst. Min. and Met. Trans., vol. 59, pp. 125-130.
Oil in Canada, vol. 8, No. 22, pp. 40, 42-47.
- Ower, J. R.
(1952): The Subsurface Stratigraphy of Southwestern Manitoba.
Williston Basin Oil Review, Dec. 1952, pp. 22-23.
1953 - Can. Inst. Min. and Met. Trans., vol. 56, pp. 391-399.
Abs: Oil in Canada, vol. 5, No. 1. pp. 52, 54.
(1953a): (and Trowell, J. G.). Manitoba - First Discovery Area in
Williston Basin.
Oil in Canada, vol. 5, No. 16, pp. 20-22, 24, 26.
(1953b): Report on Oil.
Precambrian, vol. 26, No. 3, pp. 22-26.
- Parks, T.
(1956): (and Ambler, J. S.). Winnipeg and Older Rocks, Saskatchewan.
Williston Basin Symposium, N. Dak. Geol. Soc. and Saskatchewan
Geol. Soc., Bismarck, N. Dak., pp. 115-120.
Abs: Williston Basin Oil Review, Dec. 1956.
- Petrie, E.
(1956): The Bakken Formation in Manitoba.
BSc. thesis, Univ. of Manitoba.
- Porter, J. W.
(1955): Madison Complex of Southeastern Saskatchewan and Southwestern
Manitoba.
Jour. Alta. Soc. Petrol. Geol., vol. 3, No. 8, pp. 126-130.
- Powley, D.
(1951): Devonian Stratigraphy of Central Saskatchewan.
MSc. thesis, Univ. of Saskatchewan.
Abs: 1953 - Can. Oil and Gas Indust., vol. 6, No. 6, p. 60.
- Pratt, L. E.
(1953): See Ellis, J. H.
- Prest, V. K.
(1957): Pleistocene Geology and Surficial Deposits.
Geology and Economic Minerals of Canada, Geol. Surv. Canada,
Econ. Geol. Ser. No. 1, 3rd, ed., pp. 325-333, 338-342.
- Procter, Richard, M.
(1957): Trilobites, Cephalopods, and Brachiopods of the Stony Mountain
Formation, Manitoba.
MSc. thesis, Univ. of Manitoba.
- Pye, Willard.
(1952): Relationship of Oil Accumulation to Paleogeology and Structure in
Manitoba, Eastern North and South Dakota.
Abs: Amer. Assoc. Petrol. Geol. Bull., vol. 36, No. 5, p. 125.
Abs: Oil and Gas Jour., vol. 50, No. 44, p. 125.

- Quinn, Reay P.
 (1928): An Investigation of the Physical and Chemical Properties of Manitoba and Saskatchewan Sands.
 MSc. thesis, Univ. of Manitoba.
- Rader, M. T. Jr.
 (1952): Ordovician and Silurian Carbonates of the Central Williston Basin.
 Billings Geol. Soc. Guidebook, 3rd Ann. Field Conference
 pp. 48-55.
- Radforth, Norman W.
 (1953): The Use of Plant Material in the Recognition of Northern Organic Terrain Characteristics (Manitoba).
 Trans. Roy. Soc. Canada, vol. 47, Ser. 3, Sec. 5, pp.53-71.
 1954 - Natl. Research Council of Canada, Assoc. Comm. on
 Soil and Snow Mech., Tech. Memo. No. 28, pp. 53-71.
- Rice, H. M.
 (1955): See Ehrlich, Walter A.
- Ritchie, Ian.
 (1957): Logging Program Southern Manitoba Mississippian Fields.
 Canadian Well Logging Society Formation Evaluation Symposium,
 pp. 35 - 39.
- Ross, Reuben James, Jr.
 (1957): Ordovician Fossils From Wells in the Williston Basin Eastern Montana.
 U. S. Geol. Surv. Bull., 1021-M, pp. 509-510.
- Rowland, L. O.
 (1953): Cretaceous and Jurassic - Manitoba Question Mark.
 Precambrian, vol. 26, No. 1, pp. 38-41.
 (1955): Seismograph Will Still Have Place - First Manitoba Wildcat Well
 Located on Basis of Seismic Data.
 Precambrian, vol. 28, No. 12, pp. 26, 28-29, 41.
- Russin, G. M.
 (1956): See Organ, D. W.
- Saskatchewan Geological Society.
 (1953): Type Log of Mississippian, Virden Area.
 Sask. Geol. Soc. Mississippian Nomenclature Committee.
 (1956): Report of the Mississippian Names and Correlation Committee.
 Sask. Geol. Soc., Regina, Sask., Dec. 1956.
- Schmitt, George T.
 (1953): Regional Stratigraphic Analysis of Middle and Upper Marine Jurassic
 in Northern Rocky Mountains - Great Plains.
 Amer. Assoc. Petrol. Geol. Bull., vol.37, No. 2, pp. 355-393.
- Shaw, E. W.
 (1951): (and Wells, G. C.). Principal Types of Oil and Gas Occurrences
 in Western Canada.
 Oil in Canada, vol. 3, No. 42, pp. 18-21.
 Precambrian, vol. 24, No. 8, pp. 8-11.
- Sikabonyi, L. A.
 (1957): Major Tectonic Trends in the Prairie Region of Canada.
 Jour. Alta. Soc. Petrol. Geol., vol. 5, No. 2, pp. 23-28.

- Sinclair, G. Winston.
 (1955): Some Ordovician Halysitoid Corals.
 Trans. Roy. Soc. Canada, vol. 44, Ser. 3, Sec. 4, pp. 95-103.
 (1956): *Solenopora canadenses* (Foord) and other Algae From the Ordovician of Canada.
 Trans. Roy. Soc. Canada, vol. 50, Ser. 3, Sec. 4, p. 75.
- Smith, C. Wendell.
 (1951): Williston Basin Oil Possibilities.
 World Oil, vol. 133, No. 1, pp. 78-80.
- Spector, I. H.
 (1941): Manganese Deposits in the Riding Mountain Area, Manitoba.
 MSc. thesis, Univ. of Manitoba.
- Sproule, J. C.
 (1952): Western Canadian Sedimentary Basin Problems.
 Abs: Oil in Canada, vol. 5, No. 8, pp. 18-23.
 Abs: 1953 - Can. Oil and Gas Indust., vol. 6, No. 1, pp. 46-48.
 (1954): See Laurence, R. H.
- Stanton, M. S.
 (1956): Stratigraphy of the Lodgepole Formation, Virden Area, Manitoba.
 Jour. Alta. Soc. Petrol. Geol., vol. 4, No. 7, pp. 164-67.
 Williston Basin Symposium, N. Dak. Geol. Soc. and Saskatchewan Geol. Soc., Bismarck, N. Dak., pp. 79-83.
 Abs: 1955 - Can. Oil and Gas Indust., vol. 8, No. 10, pp. 66-67.
 Abs: Amer. Assoc. Petrol. Geol. Bull., vol. 40, No. 2, p. 422.
- Stearn, Colin W.
 (1953): Ordovician - Silurian Boundary in Manitoba.
 Abs: Geol. Soc. Amer. Bull., vol. 64, pp. 1477-78.
 (1956): Stratigraphy and Palaeontology of the Interlake Group and Stonewall Formation of Southern Manitoba.
 Geol. Surv. Canada, Mem. 281, 162 pp.
- Stelck, C. R.
 (1950): See Warren, P. S.
 (1954): See Warren, P. S.
 (1956): See Warren, P. S.
- Storey, J. H.
 (1951): See Murray, A. S.
- Storey, Taras P.
 (1956): Evidence for Pre-Mississippian Erosion of Devonian in Manitoba.
 Jour. Alta. Soc. Petrol. Geol., vol. 5, No. 8, pp. 186-187.
- Stott, Donald F.
 (1954): Jurassic Stratigraphy of Manitoba.
 MSc. thesis, Univ. of Manitoba.
 (1955): The Jurassic Stratigraphy of Manitoba.
 Manitoba Mines Branch Pub. 54-2, 78 pp.
 (1956): The Jurassic Stratigraphy of Manitoba.
 Can. Min. and Met. Bull., vol. 49, No. 525, pp. 29-30.
- Teichert, C.
 (1930): See Foerste, A. F.
 (1957): See Flower, R. H.

- Thomas, G. E.
 (1954): The Mississippian of the Northeastern Williston Basin.
 Can. Inst. Min. and Met. Trans., vol. 57, pp. 68-74.
- Thomas, J. F. J.
 (1956): Saskatchewan River Drainage Basin, 1951-52.
 Canada Dept. Mines & Tech. Surv., Mines Br., Industrial Minerals
 Division, Water Survey Report, No. 7, 154 pp.
- Thompson, R. L. et al.
 (1950): Stratigraphic Correlation Chart of Western Canada and Adjoining
 Areas.
 Canadian Strat. Serv. Ltd., Calgary, Alta.
- Thorvaldson, W. M.
 (1955): Fracturing in Canada.
 Petroleum Engineer, vol. 27, No. 2, pp. B-69 to B-70.
- Towse, Donald F.
 (1953): Stratigraphic Sections of the Devonian System in Western North
 Dakota and Adjacent Areas.
 N. Dak. Geol. Surv. Rept. Inv. No. 12.
 (1954a): Jurassic System in Williston Basin.
 Amer. Assoc. Petrol. Geol. Bull., vol. 38, No. 4, pp. 454-462.
 (1954b): Williston Exploration and Geology.
 Petroleum Engineer, vol. 26, No. 12, pp. B-39 to B-46.
- Trowell, J. G.
 (1953): See Ower, J. R. - 1953a
- Venour, E. R.
 (1958): The Swan River Formation in Manitoba.
 MSc. thesis, Univ. of Manitoba.
- Waldren, Charles H.
 (1955): See Holland, F. D., Jr.
- Wallace, R. C.
 (1927): Varve Material and Banded Rocks.
 Trans. Roy. Soc. Canada, Ser. 3, vol. 21, Part II, Sec. 4,
 pp. 109-118.
- Warren, P. S.
 (1950): (and Stelck, C. R.). Succession of Devonian Faunas in Western
 Canada.
 Trans. Roy. Soc. Canada, vol. 44, Ser. 3, Sec. 4, pp. 61-78.
 (1954): (and Stelck, C. R.). The Stratigraphic Significance of the
 Devonian Coral Reefs of Western Canada.
 Western Canada Sedimentary Basin Symposium, Amer. Assoc.
 Petrol. Geol., pp. 214-218.
 (1956): (and Stelck, C. R.). Devonian Faunas of Western Canada.
 Geol. Assoc. Canada, Spec. Paper No. 1.
- Webb, J. B.
 (1951): Geological History of Plains of Western Canada.
 Amer. Assoc. Petrol. Geol. Bull., vol. 35, No. 11,
 pp. 2291-2315.
 Abs: 1954 - Western Canada Sedimentary Basin Symposium,
 Amer. Assoc. Petrol. Geol., pp. 3-28.

- Weiner, H.
 (1955): Well Completion and Stimulation Practices in Manitoba.
 Can. Min. and Met. Bull., vol. 48, No. 523, pp. 741-45.
 1956 - Can. Oil and Gas Indust., vol. 9, No. 2, pp. 46-51.
 Oil in Canada, vol. 8, No. 22, pp. 48-50, 52, 53.
- Wells, G. C.
 (1951): See Shaw, E. W.
- Wickenden, R. T. D.
 (1947): Pleistocene Glacial Deposits.
 Geology and Economic Minerals of Canada, Geol. Surv. Canada,
 Econ. Geol. Ser. No. 1, 3rd. ed., pp. 325-33, 338-42.
 (1951): Lower Cretaceous Stratigraphy.
 Oil in Canada, vol. 31, No. 50, p. 19.
 (1957): The Interior Plains.
 Geology and Economic Minerals of Canada, Geol. Surv. Canada,
 Econ. Geol. Ser. No. 1, 4th. ed., pp. 247-282.
- Wilson, James Lee
 (1956): Stratigraphic Position of the Upper Devonian Brachiopod
 Rhabdostichus in the Williston Basin.
 Jour. Paleontology, vol. 30, No. 4, pp. 959-965.
- Williams, F. J.
 (1952): Devonian Stratigraphy of Southern Saskatchewan.
 MSc. thesis, Univ. of Saskatchewan.
 Abs: 1953 - Can. Oil and Gas Indust., vol. 6, No. 6, p. 60.
- Wood, P. W. J.
 (1955): See Darling, G. B.
- Zaborniak, Helen.
 (1956): The Brachiopod Family Spiriferidae of the Lower Mississippian
 Lodgepole Formation of Manitoba.
 MSc. thesis, Univ. of Michigan.

PART II

REFERENCES INDEXED BY SUBJECT

GEOLOGY AND PALAEONTOLOGY

General Geology and Miscellaneous

Beach, Floyd, K.

(1952): Geothermal Gradients in Canadian Plains.

Borden, Robert L.

(1956c): Historical Geology and Tectonics of the Southern Part of the Prairie Provinces, Canada.

Gallup, W. B. and Hamilton, G. J.

(1953): The Orogenic History of the Williston Basin, Saskatchewan.

Johnson, E. J.

(1950): Pollen Analysis of Peat Underlying a Treeless Heath Area in the Forest Tundra Transition Near Churchill, Manitoba.

McCartney, Garnet C.

(1928): A Petrographic Study of Various Sand Horizons of Manitoba and Eastern Saskatchewan.

Mollard, J. R.

(1957): Aerial Mosaics Reveal Fracture Patterns on Surface Materials in Southern Saskatchewan and Manitoba.

Quinn, Reay P.

(1928): An Investigation of the Physical and Chemical Properties of Manitoba and Saskatchewan Sands.

Sikabonyi, L. A.

(1957): Major Tectonic Trends in the Prairie Region of Canada.

Sproule, J. C.

(1952): Western Canadian Sedimentary Basin Problems.

Thorvaldson, W. M.

(1955): Fracturing in Canada.

General Stratigraphy

Alberta Society of Petroleum Geologists.

(1951): Western Canada.

Barnes, T. R.

(1952): The Williston Basin - A New Province for Oil Exploration.

Edmunds, F. H.

(1954): Petroleum Geology of Western Canada.

Hadley, H. D., Lewis, P. J., and Larsen, R. B.

(1952): Catalog of Formation Names For Williston Basin and Adjacent Areas.

(1953): Catalog of Formation Names For Williston Basin and Adjacent Areas.

Laird, W. M.

(1953): Geology of the Williston Basin.

- Link, Theo. A.
 (1950): The Western Canada Sedimentary Basin Area.
- McCabe, William S.
 (1954): Williston Basin Paleozoic Unconformities.
 North Dakota Geological Society.
 (1954): Stratigraphy of the Williston Basin.
- Ower, J. R.
 (1952): The Subsurface Stratigraphy of Southwestern Manitoba.
- Thompson, R. L. et al.
 (1950): Stratigraphic Correlation Chart of Western Canada and Adjoining Areas.
- Towse, Donald F.
 (1954b): Williston Exploration and Geology.
- Webb, J. B.
 (1951): Geological History of Plains of Western Canada.
- Wickenden, R. T. D.
 (1957): The Interior Plains.

Cenozoic

Pleistocene

- Elson, J. A.
 (1954): Guidebook Pleistocene Geology of Southwestern Manitoba.
 (1955): Surficial Geology of the Tiger Hills Region, Manitoba.
 (1956): Surficial Geology of Deloraine, Manitoba.
 (1957a): Lake Agassiz and the Mankato-Valders Problem.
 (1957b): History of Glacial Lake Agassiz.
 (1957c): Origin of Washboard Moraines.
 (1957d): Souris Basin Glacial Lakes, Southwestern Manitoba, Canada.
 (1957e): Striated Boulder Pavements of Southern Manitoba, Canada.
- Flint, R. F.
 (1953): Probable Wisconsin Substages and Late Wisconsin Events in Northeastern United States and Southeastern Canada.
- Garden, J. J.
 (1949): Preliminary Study of the Boissevain and Turtle Mountain Formation of Southwest Manitoba.
- Organ, D. W.
 (1952): Pleistocene Gravels of the Red River Valley.
- Prest, V. K.
 (1957): Pleistocene Geology and Surficial Deposits.
- Wallace, R. C.
 (1927): Varve Material and Banded Rocks.
- Wickenden, R. T. D.
 (1947): Pleistocene Glacial Deposits.

Mesozoic

- Borden, R. L.
 (1956b): Mesozoic Stratigraphy of the Southern Part of the Prairie Provinces, Canada.

Rowland, L. O.

(1953): Cretaceous and Jurassic - Manitoba Question Mark.

Cretaceous

Hegion, Steve.

(1950): Structure of the First White Speckled Shale in Manitoba and Saskatchewan.

Leith, Edward I.

(1929): A Stratigraphic Study of the Coloradoan of the Manitoba Escarpment With Special Reference to Certain of the Calcareous Horizons.

Venour, E. R.

(1958): The Swan River Formation in Manitoba.

Wickenden, R. T. D.

(1951): Lower Cretaceous Stratigraphy.

Jurassic

Francis, David R.

(1956a): Some Aspects of Jurassic Stratigraphy in the Williston Basin Area.

(1956b): Jurassic Stratigraphy of the Williston Basin Area.

Frebold, Hans.

(1953): Correlation of the Jurassic Formations of Canada.

Klingspor, A.

(1955): Jurassic Stratigraphy of the Sweetgrass Arch. Manitoba Section.

McCabe, H. R.

(1956): Lyleton and Amaranth Red Beds in Southwestern Manitoba.

Macdonald, W. D.

(1954): Jurassic Correlation From Sweetgrass Arch to Manitoba.

Schmitt, George T.

(1953): Regional Stratigraphic Analysis of Middle and Upper Marine Jurassic in Northern Rocky Mountains - Great Plains.

Stott, Donald F.

(1954): Jurassic Stratigraphy of Manitoba.

(1955): The Jurassic Stratigraphy of Manitoba.

(1956): The Jurassic Stratigraphy of Manitoba.

Towse, Donald.

(1954a): Jurassic System in Williston Basin.

Palaeozoic

Baillie, A. D.

(1952b): Palaeozoic Stratigraphy of the Outcrop Area in Manitoba.

Birse, Donald J.

(1928): Dolomitization Processes in the Palaeozoic Horizons of Manitoba.

Borden, Robert L.

(1956a): Upper Palaeozoic Stratigraphy of the Southern Part of the Prairie Provinces, Canada.

Duncan, Helen.

(1956): Ordovician and Silurian Coral Faunas of Western United States.

- Flower, R. H. and Teichert, C.
 (1957): The Cephalopod Order Discosorida.
- Kupsch, W. O.
 (1952): Ordovician and Silurian Stratigraphy of East Central Saskatchewan. North Dakota Geological Society.
- (1952): Southern Manitoba and the Interlake Area, Province of Manitoba.
- Rader, M. T., Jr.
 (1952): Ordovician and Silurian Carbonates of the Central Williston Basin.
- Stearn, C. W.
 (1953): Ordovician - Silurian Boundary in Manitoba.

Mississippian

- Edie, R. W.
 (1957): Saskatchewan's Regional Habitat of Mississippian Oil.
- Fuller, J. G. C. M.
 (1956a): Madison Limestone in Southeastern Saskatchewan.
 (1956b) Mississippian Rocks and Oil Fields in Southeastern Saskatchewan.
 (1956c): Mississippian Rocks in Southeastern Saskatchewan.
 (1957a): Mississippian of the Williston Basin.
 (1957b): Stratigraphic Names: Mississippian Rocks in Saskatchewan.
- Harrison, R. L., Jr. and Flood, A. L.
 (1957): Mississippian Correlations in the Williston Basin.
- Organ, D. W. and Russin, G. M.
 (1956): Mississippian Stratigraphy of the Daly Oil Field.
- Petrie, E.
 (1956): The Bakken Formation in Manitoba.
- Porter, J. W.
 (1955): Madison Complex of Southeastern Saskatchewan and Southwestern Manitoba.
- Saskatchewan Geological Society.
 (1953): Type Log of Mississippian, Virden Area.
 (1956): Report of the Mississippian Names and Correlation Committee.
- Stanton, M. S.
 (1956): Stratigraphy of the Lodgepole Formation, Virden Area, Manitoba.
- Thomas, G. E.
 (1954): The Mississippian of the Northeastern Williston Basin.
- Zaborniak, Helen.
 (1956): The Brachiopod Family Spiriferidae of the Lower Mississippian Lodgepole Formation of Manitoba.

Devonian

- Andrichuk, John.
 (1952): Devonian of the Northern Rocky Mountain and Great Plains Area.
- Baillie, A. D.
 (1950): Devonian Stratigraphy of Lake Manitoba-Lake Winnipegosis Area, Manitoba.
 (1953a): Devonian System of the Williston Basin Area, Manitoba.
 (1953b): Devonian System of the Williston Basin Area, Manitoba.
 (1953c): Devonian Names and Correlations in the Williston Basin Area.
 (1955): Devonian System of the Williston Basin.

- Check, R.
 (1956): Winnipegosis Formation of Saskatchewan and Adjacent Areas.
- Cooper, G. A.
 (1942): Correlation of the Devonian Sedimentary Formations of North America.
- Crickmay, C. H.
 (1954): Paleontological Correlation of Elk Point and Equivalents.
 (1957): Elucidation of Some Western Canada Devonian Formations.
- Harris, S. H. and Mallin, J. W.
 (1957): Devonian of the United States Portion of the Williston Basin.
- Hees, H. Van.
 (1956): Elk Point Group.
- La Rocque, Aurele.
 (1949): New Uncoiled Gastropods From the Middle Devonian of Michigan and Manitoba.
- Leith, Edward I.
 (1951a): Frilled Atrypas From the Devonian of Manitoba.
- McGehee, J. Rex.
 (1952): A Resume of the Elk Point Formation in View of Recent Drilling in the Williston Basin.
- Mitchell, J. G.
 (1951): Preliminary Notes on Correlation of Beaverhill Lake and Elk Point Formations of Alberta with Manitoban, Winnipegosan, and Elk Point Formations of Manitoba.
- Powley, D.
 (1951): Devonian Stratigraphy of Central Saskatchewan.
- Storey, Taras P.
 (1956): Evidence For Pre-Mississippian Erosion of Devonian in Manitoba.
- Towse, Donald F.
 (1953): Stratigraphic Sections of the Devonian System in Western North Dakota and Adjacent Areas.
- Warren, P. S. and Stelck, C. R.
 (1950): Succession of Devonian Faunas in Western Canada.
 (1954): The Stratigraphic Significance of the Devonian Coral Reefs of Western Canada.
 (1956): Devonian Faunas of Western Canada.
- Wilson, James Lee
 (1956): Stratigraphic Position of the Upper Devonian Brachiopod Rhabdos-tichus in the Williston Basin.
- Williams, F. J.
 (1952): Devonian Stratigraphy of Southern Saskatchewan.

Silurian

- Baillie, A. D.
 (1951): Silurian Geology of the Interlake Area, Manitoba.
- Dowling, D. B.
 (1895): Notes on the Stratigraphy of the Cambro-Silurian Rocks of Eastern Manitoba.

Stearn, Colin W.

- (1956): Stratigraphy and Palaeontology of the Interlake Group and Stone-wall Formation of Southern Manitoba.

Ordovician

Baillie, A. D.

- (1952a): Ordovician Geology of the Lake Winnipeg and Adjacent Areas, Manitoba.

Clark, T. H. and Blake, D. A. W.

- (1952): Ordovician Fossils From Waswanipi Lake, Quebec.

Cox, Ian.

- (1938): Arctic and Some Other Species of Streptelasma.

Duncan, Helen.

- (1957): Bighornia, A New Ordovician Coral Genus.

Flower, Rousseau H.

- (1956): Age of the Red River Faunas (Ordovician), Manitoba to New Mexico.

Foerste, A. F. and Teichert, C.

- (1930): The Actinoceroids of East-Central North America.

Genik, G. J.

- (1952): Regional Study of the Winnipeg Formation.

- (1954): Regional Study of the Winnipeg Formation.

Holland, F. D., Jr. and Waldren, Charles H.

- (1955): Conodonts in the Winnipeg Formation (Ordovician) of North Dakota.

Leith, Edward I.

- (1952): Schizocoralla From the Ordovician of Manitoba.

Macauley, George.

- (1951): (and Leith, E. I.). Winnipeg Formation of Manitoba.

- (1952): The Winnipeg Formation in Manitoba.

- (1955): A General Discussion of the Winnipeg Formation.

Nelson, Samuel J.

- (1952): Ordovician Palaeontology and Stratigraphy of the Churchill and Nelson River, Manitoba.

- (1953): Ordovician Stratigraphy and Paleontology of the Northern Hudson Bay Lowlands.

Parks, T. and Amber, J. S.

- (1956): Winnipeg and Older Rocks, Saskatchewan.

Procter, Richard M.

- (1957): Trilobites, Cephalopods, and Brachiopods of the Stony Mountain Formation, Manitoba.

Ross, Reuben James, Jr.

- (1957): Ordovician Fossils From Wells in the Williston Basin, Eastern Montana.

Sinclair, G. Winston.

- (1955): Some Ordovician Halysitoid Corals.

- (1956): Solenopora canadenses (Foord) and Other Algae From the Ordovician of Canada.

INDUSTRIAL MINERALS

Anonymous.

(1946): Buildings by Manitoba.

(1957a): Manitoba Clay Products Industry.

Armstrong, W. E.

(1923): The Gypsum Industry in Manitoba.

Canada Department of Mines and Technical Surveys.

(1950-54): Canadian Mineral Industry, Mines Branch Nos. 835, 841, 844, 851, 857.

Cole, G. E.

(1951): Activity in Manitoba.

(1953): Manitoba's Industrial Minerals.

Gutshick, K. A.

(1956): Canada Cement's Largest Kiln Doubles Capacity at Fort Whyte Plant.

Hutt, G. M.

(1951): Searching for Industrial Minerals in Canada - Part I and Part II.

(1953): Strategic and Industrial Mineral Production in Manitoba.

Matthews, J. G.

(1952): Preliminary Report on Coated Lightweight Concrete Aggregate From Canadian Clays and Shales, Part II, Manitoba and Saskatchewan.

Spector, I. H.

(1941): Manganese Deposits in the Riding Mountain Area, Manitoba.

SOILS

Anonymous.

(1953b): Sixth Annual Canadian Soil Mechanics Conference.

Baracos, A.

(1950): Soil Mechanics and the Winnipeg Flood.

(1952): Foundation Investigation in Winnipeg Following the 1950 Red River Flood.

Ehrlich, W. A. et al.

(1953): Report of Reconnaissance Soil Survey of Winnipeg and Morris Map Sheet Areas.

(1955): (and Rice, H. M.). Post-Glacial Weathering of Mankato Till in Manitoba.

Ellis, J. H. and Pratt, L. E.

(1953): Source and Nature of the Regolith in the Various Landscape Areas of Southern Manitoba.

Johnson, W. A.

(1953): Origin and Characteristics of the Red River Valley and Regina Plain Soils of Western Canada.

Macdonald, A. E.

(1952): Soils and Foundations Work in Manitoba.

Radforth, N. W.

(1953): The Use of Plant Material in the Recognition of Northern Organic Terrain Characteristics (Manitoba).

GROUNDWATER

Elson, J. A.

(1949a): Groundwater Resources of Townships 7 to 10, Ranges 4 to 17 WPM, Manitoba (Carberry Area).

(1949d): Groundwater Resources of Townships 1 to 6, Ranges 18 to 21 WPM, Manitoba (Boissevain Area).

Halstead, E. C.

(1949a): Groundwater Resources of Townships 7 to 10, Ranges 22 to 25 WPM, Manitoba (Oak Lake Area).

(1949b): Groundwater Resources of Townships 7 to 10, Ranges 26 to 29 WPM, Manitoba (Virden Area).

(1949d): (and Elson, J. A.). Groundwater Resources of Townships 1 to 6, Ranges 26 to 29 WPM, Manitoba (Melita Area).

(1949e): (and Elson, J. A.). Groundwater Resources of Townships 1 to 6, Ranges 22 to 25 WPM, Manitoba (Deloraine Area).

(1951a): Groundwater Resources of Townships 11 to 14, Ranges 18 to 21 WPM, Manitoba (Rivers Area).

(1951b): Groundwater Resources of Townships 11 to 14, Ranges 22 to 25, WPM, Manitoba (Hamiota Area).

(1951c): Groundwater Resources of Townships 11 to 14, Ranges 26 to 29 WPM, Manitoba (Elkhorn Area).

(1954a): Groundwater Resources of Townships 1 to 6, Ranges 6 to 9 WPM, Manitoba (Manitou Area).

(1954b): Groundwater Resources of Townships 1 to 6, Ranges 10 to 13 WPM, Manitoba (Pilot Mound Area).

(1954c): Groundwater Resources of Townships 7 to 10, Ranges 18 to 21 WPM, Manitoba (Brandon-Souris Area).

Kuiper, E.

(1953a): Dikes - Pasquia Area.

(1953b): Hydrometric Surveys - 1953.

(1953c): History and Geology.

(1954): Drainage - Pasquia Area.

(1955): Regime Saskatchewan River.

Thomas, J. F. J.

(1956): Saskatchewan River Drainage Basin, 1951 - 52.

PETROLEUM AND EXPLORATION

Allan, J. D.

(1951): Exploration For Oil and Gas in Manitoba.

Anonymous.

(1953a): Williston - Newest Producing Basin of the Rockies.

(1957b): Manitoba Oil Fields.

(1957c): Williston Correlator.

A. P. I. Subcommittee.

(1955): Mud Practices in the Prairie Provinces - Part II.

Atkinson, R. F. and Hegion, Steve.

(1956): Progress and Development of the Virden-Roselea Field, Virden, Manitoba.

- Beck, A. F.
(1950): Western Canadian Plains - A New Challenge to Geophysics.
- Berg, C. A.
(1956): Virden-Roselea and North Virden Fields, Manitoba.
- Burg, K. E.
(1952): Exploration Problems of the Williston Basin.
- Darling, G. B. and Wood, P. W. J.
(1955): The Habitat of Oil in the Canadian Portion of the Williston Basin.
- Fowler, Noel M.
(1953): Manitoba - Williston Basin's Northeast Flank.
- Gallup, W. B.
(1952): Oil and Gas Exploration on the Canadian Plains.
- Harrison, Ray L. Jr.
(1953): The Story of Williston Basin.
- Hodgson, G. W.
(1954): Vanadium, Nickel, and Iron Trace Metals in Crude Oils of Western Canada.
- Hume, G. S.
(1950): Western Canada's Petroleum and Natural Gas Resources.
- Johnson, Walter.
(1956): Mississippian Oil Fields of Northeastern Williston Basin.
- Kornfeld, Joseph A.
(1953): Seismic Problems in Williston Basin.
- Laurence, R. H. and Sproule, J. C.
(1954): Report on the Daly and Virden-Roselea Oil Fields, Manitoba.
- Lukk, Gerard E.
(1954): The Williston Basin and Its Exploration Problems.
- McCaslin, John C.
(1956): Where Production Comes From in Four Important Rocky Mountain Basins - Williston.
- Mackenzie, W. D. C.
(1953): Development of Petroleum Resources in Western Canada.
- MacLean, Brian.
(1956): Oil and Gas Developments in Western Canada.
- Millikan, C. V.
(1953): Development and Production in the Williston Basin.
- Milne, J. F. and Nickaloff, G. D.
(1955): Virden-Roselea Shows Promise of Manitoba.
- Murray, A. S., Storey, J. H., Buffington, E. C., and Mackay, S.
(1951): Mud Practices in the Prairie Provinces.
- Nickle, C. O.
(1951): Western Canada Oil and Gas - How Far - and How Much Farther?
- Ower, J. R. and Trowell, J. G.
(1953a): Manitoba - First Discovery Area in Williston Basin.
(1953b): Report On Oil.
- Pye, Willard.
(1952): Relationship of Oil Accumulation to Paleogeology and Structure in Manitoba, Eastern North and South Dakota.
- Ritchie, Ian.
(1957): Logging Program Southern Manitoba Mississippian Fields.

Rowland, L. O.

(1955): Seismograph Will Still Have Place - First Manitoba Wildcat Well
Located on Basis of Seismic Data.

Shaw, E. W. and Wells, G. C.

(1951): Principal Types of Oil and Gas Occurrences in Western Canada.

Smith, G. Wendell.

(1951): Williston Basin Oil Possibilities.

Towse, Donald.

(1954b): Williston Exploration and Geology.

Weiner, H.

(1955): Well Completion and Stimulation Practices in Manitoba.

PART III

Appendix I

Stratigraphic Maps

Department of Mines and Natural Resources, Mines Branch-Geological Division
Stratigraphic Series.

- Strat. Map No. 1 - Eight-well, east-west stratigraphic cross section, southwestern Manitoba. Compiled by H. M. Zaborniak.
- Strat. Map No. 2 - Seven-well, north-south stratigraphic cross section, southwestern Manitoba. Compiled by H. M. Zaborniak.
- Strat. Map No. 3 - Nine-well, north-south stratigraphic cross section, southwestern Manitoba. Compiled by H. M. Zaborniak.
- Strat. Map No. 4 - Isopach and structure contour map of the Mississippian System of southwestern Manitoba. Compiled by H. M. Zaborniak.
- Strat. Map No. 5 - Six-well, east-west stratigraphic cross section of Mississippian, Sinclair to Oak Lake. Compiled by H. R. McCabe.
- Strat. Map No. 6 - Seven-well, east-west stratigraphic cross section of Mississippian, Pierson to Boissevain. Compiled by H. R. McCabe.
- Strat. Map No. 7 - Daly Field - Structure Contour Map on the First Crinoidal Zone (Middle Daly Member). Compiled by O. J. Fleming.
- Strat. Map No. 8 - Structure Contour Map of Upper Virden Member, Lodgepole Formation, North Virden and Virden-Roselea fields. Compiled by O. J. Fleming.
- Strat. Map No. 9 - Isopach Map of Prairie Evaporites of Elk Point Group. Compiled by O. J. Fleming.
- Strat. Map No. 10 - Structure Contour Map, top of Precambrian. Compiled by O. J. Fleming.
- Strat. Map No. 11 - Structure Contour and Isopach Map of Winnipeg Formation. Compiled by O. J. Fleming.
- Strat. Map No. 12 - Structure Contour and Isopach of Red River Formation. Compiled by O. J. Fleming.
- Strat. Map No. 13 - Structure Contour and Isopach Map of Stony Mountain Formation. Compiled by O. J. Fleming.
- Strat. Map No. 14 - Structure Contour and Isopach of Sand Zone, Ashville Formation. Compiled by O. J. Fleming.

Appendix II

Drilling Activity

Cole, G. E.

- (1951-56): Oil in Manitoba.
Western Miner, vol. 24, No. 3, 4, 5
vol. 25, No. 9
vol. 26, No. 3, 4
vol. 27, No. 4
vol. 28, No. 11
vol. 29, No. 1

Rowland, L. O.

- (1951-57): A Monthly Report on Drilling Activity in Manitoba.
Precambrian, vol. 25 to 30.
Oil in Canada vol. 5, No. 16
vol. 6, No. 22
vol. 7, No. 9
vol. 8, No. 14, 22

Developments in Western Canada in 1950-56.

- (1951-57): Amer. Assoc. Petrol. Geol. Bull., vol. 35, No. 6
vol. 36, No. 6
vol. 37, No. 6
vol. 38, No. 6
vol. 39, No. 6
vol. 40, No. 6
vol. 41, No. 6

Current Data on Manitoba Oil

- (1954-57): Current Data on Manitoba Oil
Oil in Canada, vol. 6, No. 22
vol. 7, No. 1, 22
vol. 8, No. 1, 13, 22
vol. 9, No. 1, 14, 22

Petroleum Engineering Division, Dept. of Mines and Natural Resources.

- (1952-57): Cumulative Schedule of Wells
(1957): Oil Facts of Manitoba
Monthly "Schedule of Wells"
Monthly "Crude Oil and Water Production Statistics"
Analyses of Formation Water Samples
Well Locations Map Key List, with weekly well activity
supplements.
Regulations Under the Mines Act for the Disposal of Oil and
Natural Gas Rights on Crown Lands and the Exploration,
Development and Production of Oil and Natural Gas in
Manitoba.

Appendix III

List of Authors - before 1950

(Omitted From Pub. 51-2)

Anonymous 1946
Armstrong, W. E. 1923
Baillie, A. D. 1950
Baracos, A. 1950
Beck, A. F. 1950
Birse, Donald J. 1928
Cooper, G. A. 1942
Cox, Ian 1938
Dowling, D. B. 1895
Elson, J. A. 1949a, 1949b, 1949c, 1949d
Foerste, A. F. 1930
Garden, J. J. 1949
Halstead, E. C. 1949a, 1949b, 1949c, 1949d, 1949e
Hegion, Steve 1950
Hume, G. S. 1950
Johnson, E. J. 1950
La Roque, Aurele 1949
Leith, Edward I. 1929
Link, Theo. A. 1950
McCartney, G. C. 1928
Quinn, R. B. 1928
Spector, I. H. 1941
Stelck, C. R. 1950
Teichert, C. 1930
Thompson, R. L. 1950
Wallace, R. C. 1927
Warren, P. S. 1950
Wickenden, R. T. D. 1947

